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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,666	01/10/2005	Yuichi Komuro	01165.0933	9409
7590 03/20/2009 Finnegan Henderson Farabow Garrett & Dunner 1300 I Street NW Washington, DC 20005-3315				
EXAMINER				
CHOI, PETER Y				
ART UNIT		PAPER NUMBER		
1794				
MAIL DATE		DELIVERY MODE		
03/20/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/520,666

**Applicant(s)**

KOMURO ET AL

**Examiner**

PETER Y. CHOI

**Art Unit**

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SG/US)  
Paper No(s)/Mail Date 01/07/09.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on March 2, 2009, has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1 and 2 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 1 and 2, claim 1 sets forth that the buffer plate is a plain weave net in a range of from 8-mesh to 25-mesh. Applicants' specification does not provide support for the plain weave net to comprise the range from 8-mesh to 25-mesh. Although Applicants' specification recites examples where the buffer plate is 8-mesh or 25-mesh or 18-mesh,

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Applicants' specification does not provide specific support for the entire range from 8-mesh to 25-mesh.

***Claim Rejections - 35 USC § 102/103***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over USPN 2,862,251 to Kalwaites.

Regarding claims 1 and 2, Kalwaites teaches a wiper of a nonwoven fabric consisting of filament fibers of cupra-ammonium rayon, with no binding materials, which filament fibers are entangled with each other with a high-pressure water jet stream, wherein a buffer plate is placed on a web of the nonwoven fabric supported by a drum and the water jet stream is applied to the nonwoven fabric web from above the buffer plate, and the buffer plate is a weave net, wherein the nonwoven fabric has an amount of material dissolved therefrom into acetone is 340 mg/kg or less or 190 mg/kg or less (see entire document including column 1 line 15 to column 5 line 24, column 8 lines 10-52, column 9 line 7 to column 10 line 10, column 11 lines 13-31, column 14

line 58, column 15 line 22, column 16 lines 44-55, column 18 lines 23-29, column 27 line 66 to column 28 line 31, column 29 lines 68-75, Figures 1-57, claims 1-77). It should be noted that Applicants' specification teaches that if the cellulose filament fiber is cupra-ammonium and is 40% by weight or more, and formed by a high-pressure water jet stream, then the water absorption becomes 8 ml/g (*see* page 8 of Applicants' specification). Therefore, the limitation that the water absorption is 8 ml/g or more and 9 ml/g or more appears to be inherent to the structure of the prior art, absent evidence to the contrary. Additionally, it should be noted that a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. Since the prior art teaches a substantially similar structure and composition as the claimed invention, the structure of the prior art appears to be within the scope of a wiper, absent evidence to the contrary.

Additionally, although Kalwaites does not specifically recite that the buffer plate is a plain weave net, it is reasonable to presume that the buffer plate is a plain weave net as Kalwaites teaches that the screen is a woven screen. Additionally, it would have been obvious to one of ordinary skill in the nonwoven fabric art at the time the invention was made to form the nonwoven fabric of Kalwaites, wherein the buffer plate is a plain weave net, as Kalwaites teaches that the apertured means has uniform apertures and that woven screens are preferred, and plain weave nets are known in the art to provide uniform apertures and to provide a uniform surface.

Additionally, although Kalwaites does not specifically teach that the buffer plate has an opening degree in a range of from 10 to 47% and that the plate is in the range of from 8-mesh to 25-mesh, Kalwaites teaches that the apertured means have uniform apertures in the order of about 1/32 of an inch, which corresponds to about 0.8 mm. Applicants' remarks of March 2, 2009, recite that 25-mesh net has a through-hole length of about 0.8mm. Therefore, since Kalwaites teaches a mesh size which corresponds to 25-mesh net, it is reasonable to presume that the buffer plate has an opening degree in a range of from 10 to 47%, absent evidence to the contrary. Additionally, it would have been obvious to one of ordinary skill in the nonwoven fabric art at the time the invention was made to optimize the opening degree in the claimed range, as Kalwaites teaches that the screen opening may vary based on the intended application, such that a finer screen will tend to be more even and more readily allow the motion of fibers along its surface, while a coarse screen may trap fibers and cause them to stick in the screen.

Additionally, the recitations requiring the buffer plate to specifically be a plain weave net and the nonwoven fabric to be supported by a net are product-by-process limitations. Absent a showing to the contrary, it is Examiner's position that the article of the applied prior art (nonwoven fabric consisting of cupra-ammonium rayon entangled with a water jet stream, wherein water is applied to the nonwoven fabric from above a buffer plate having the claimed mesh and opening degree) is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made

by a different process. The burden has been shifted to Applicants to show unobvious difference between the claimed product and the prior art product. The applied prior art either anticipated or strongly suggested the claimed subject matter. It is noted that if Applicants intend to rely on Examples in the specification or in a submitted declaration to show unobviousness, Applicants should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the applied prior art.

Regarding claims 1 and 2, the prior art does not appear to specifically teach that the amount of micro-matter of 100 $\mu$ m or more falling-off therefrom is 20,000 pieces/m<sup>2</sup> or less or 14,000 pieces/m<sup>2</sup> or less as measured by a method using a supersonic wave. Although the prior art does not disclose the claimed properties, the claimed properties are deemed to be inherent to the structure in the prior art since the prior art teaches an invention with a substantially similar structure and chemical composition (nonwoven fabric consisting of cupra-ammonium rayon entangled with a water jet stream, wherein water is applied to the nonwoven fabric from above a buffer plate having the claimed mesh and opening degree) as the claimed invention. Products of identical structure cannot have mutually exclusive properties. The burden is on the Applicants to prove otherwise.

Regarding claims 1 and 2, the prior art does not specifically teach that the wiper is used on applications which are clean. However, the claimed recitation is an intended use of the wiper. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use,

then it meets the claim. Since the prior art teaches a substantially similar structure and composition as the claimed invention, the structure of the prior art appears capable of performing the intended use, absent evidence to the contrary.

In the event it is shown that Kalwaites does not disclose the claimed invention with sufficient specificity, the invention is obvious because Kalwaites discloses the claimed constituents and discloses that they may be used in combination.

6. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as obvious over USPN 5,238,644 to Boulanger in view of USPN 3,906,130 to Tsurumi.

Regarding claims 1 and 2, Boulanger teaches a wiper of a nonwoven fabric consisting of filament fibers of rayon, with no binding materials, which filament fibers are entangled with each other with a high-pressure water jet stream, wherein a buffer plate is placed on a web of the nonwoven fabric supported by a drum and the water jet stream is applied to the nonwoven fabric web from above the buffer plate, and the buffer plate is a net, wherein the nonwoven fabric has an amount of material dissolved therefrom into acetone is 340 mg/kg or less or 190 mg/kg or less (see entire document including column 1 line 8 to column 4 line 22, column 6 lines 17-54, column 7 lines 7-58, column 9 lines 4-15, column 11 lines 31-68).

Additionally, although Boulanger does not specifically teach that the buffer plate has an opening degree in a range of from 10 to 47% and that the plate is in the range of from 8-mesh to 25-mesh, Boulanger teaches that the screen has a mesh opening of 800 microns, which corresponds to 0.8 mm. Applicants' remarks of March 2, 2009, recite that 25-mesh net has a through-hole length of about 0.8mm. Therefore, since Boulanger teaches a mesh size which



corresponds to 25-mesh net, it is reasonable to presume that the buffer plate has an opening degree in a range of from 10 to 47%, absent evidence to the contrary. Additionally, it would have been obvious to one of ordinary skill in the nonwoven fabric art at the time the invention was made to optimize the opening degree in the claimed range, as Boulanger teaches that the screen may vary based on the intended application and the operating conditions, in order to form the desired fabric network structure.

Regarding claims 1 and 2, the prior art does not appear to specifically teach that the rayon continuous filaments comprise cuprammonium rayon continuous filaments. However, Tsurumi teaches a binderless hydraulically entangled nonwoven rayon web wherein the web is formed of cuprammonium continuous filaments or viscose rayon to form a meshedly perforated product (Tsurumi, column 1 lines 6-37, column 4 line 63 to column 5 line 9, column 8 line 20 to column 12 line 50). It would have been obvious to one of ordinary skill in the wipe art at the time the invention was made to form the wiper of a nonwoven fabric of Boulanger, wherein the wiper comprises cuprammonium rayon continuous filaments as taught by Tsurumi, motivated by the desire of forming a conventional nonwoven fabric with filament fibers known in the art to be functionally equivalent and similarly suitable for wiping applications, and the simple substitution of cuprammonium rayon filaments for rayon fibers would yield predictable results.

It should be noted that Applicants' specification teaches that if the cellulose filament fiber is cupra-ammonium and is 40% by weight or more, and formed by a high-pressure water jet stream, then the water absorption becomes 8 ml/g (*see* page 8 of Applicants' specification). Therefore, the limitation that the water absorption is 8 ml/g or more and 9 ml/g or more appears to be inherent to the structure of the prior art, absent evidence to the contrary.

Additionally, although the prior art does not specifically recite that the buffer plate is a plain weave net and that the fabric is supported by a net, the claimed recitations are product-by-process limitations. Absent a showing to the contrary, it is Examiner's position that the article of the applied prior art (nonwoven fabric consisting of cupra-ammonium rayon entangled with a water jet stream, wherein water is applied to the nonwoven fabric from above a buffer plate having the claimed mesh and opening degree) is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production.

Regarding claims 1 and 2, the prior art does not appear to specifically teach that the amount of micro-matter of  $100\mu\text{m}$  or more falling-off therefrom is  $20,000\text{ pieces/m}^2$  or less or  $14,000\text{ pieces/m}^2$  or less as measured by a method using a supersonic wave. Although the prior art does not disclose the claimed properties, the claimed properties are deemed to be inherent to the structure in the prior art since the prior art teaches an invention with a substantially similar structure and chemical composition (nonwoven wipe comprising cupra-ammonium fibers which are entangled with each other by a high-pressure water jet stream through a buffer plate) as the claimed invention. Products of identical structure cannot have mutually exclusive properties. The burden is on the Applicants to prove otherwise.

Regarding claims 1 and 2, the prior art does not specifically teach that the wiper is used on applications which are clean. However, the claimed recitation is an intended use of the wiper. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed

invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Since the prior art teaches a substantially similar structure and composition as the claimed invention, the structure of the prior art appears capable of performing the intended use, absent evidence to the contrary.

7. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as obvious over Kalwaites in view of USPN 4,275,105 to Boyd.

Regarding claims 1 and 2, the prior art appears to teach that the amount of micro-matter of 100 $\mu$ m or more falling-off therefrom is 20,000 pieces/m<sup>2</sup> or less or 14,000 pieces/m<sup>2</sup> or less as measured by a method using a supersonic wave is inherent to the invention of the prior art. Additionally, Boyd teaches a substantially similar wipe comprising a binderless nonwoven rayon web formed by hydraulic needling, wherein the rayon web is used for wiping, and wherein the lint release is greatly reduced and the lint release was 16 mg/m<sup>2</sup> (Boyd, column 1 lines 7-36, column 2 lines 49-68, column 4 line 39 to column 5 line 17, column 5 lines 53-65, column 6 line 66 to column 7 line 6, column 9 lines 11-34, Examples 1-12, Tables III-XI, claim 1). As best Examiner can determine, since the binderless hydraulically needled nonwoven rayon web of Boyd appears to be substantially similar to the rayon wiper of the claimed invention, the lint release of Boyd appears to be substantially similar to the claimed micro-matter fall-off values, absent evidence to the contrary. Therefore, it would have been obvious to one of ordinary skill in the wipe art at the time the invention was made to form the wiper of a nonwoven fabric of the prior art, wherein the nonwoven fabric has the lint release values as taught by Boyd, motivated by the desire of forming a conventional wipe which is soft, pliable, comfortable, and

substantially free of particulate discharge. Additionally, it should be noted that the lint release of the invention of the prior art appears to be substantially similar to the claimed micro-matter fall-off values, absent evidence to the contrary.

8. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as obvious over Boulanger in view of Tsurumi and Boyd.

Regarding claims 1 and 2, the prior art appears to teach that the amount of micro-matter of 100 $\mu$ m or more falling-off therefrom is 20,000 pieces/m<sup>2</sup> or less or 14,000 pieces/m<sup>2</sup> or less as measured by a method using a supersonic wave is inherent to the invention of the prior art. Additionally, Boyd teaches a substantially similar wipe comprising a binderless nonwoven rayon web formed by hydraulic needling, wherein the rayon web is used for wiping, and wherein the lint release is greatly reduced and the lint release was 16 mg/m<sup>2</sup> (Boyd, column 1 lines 7-36, column 2 lines 49-68, column 4 line 39 to column 5 line 17, column 5 lines 53-65, column 6 line 66 to column 7 line 6, column 9 lines 11-34, Examples 1-12, Tables III-XI, claim 1). As best Examiner can determine, since the binderless hydraulically needled nonwoven rayon web of Boyd appears to be substantially similar to the rayon wiper of the claimed invention, the lint release of Boyd appears to be substantially similar to the claimed micro-matter fall-off values, absent evidence to the contrary. Therefore, it would have been obvious to one of ordinary skill in the wipe art at the time the invention was made to form the wiper of a nonwoven fabric of the prior art, wherein the nonwoven fabric has the lint release values as taught by Boyd, motivated by the desire of forming a conventional wipe which is soft, pliable, comfortable, and

substantially free of particulate discharge. Additionally, it should be noted that the lint release of the invention of the prior art appears to be substantially similar to the claimed micro-matter.

***Response to Arguments***

9. Applicants' arguments with respect to claims 1 and 2 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PETER Y. CHOI whose telephone number is (571)272-6730. The examiner can normally be reached on Monday - Friday, 08:00 - 15:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Peter Y Choi /PYC/  
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